

NAME HW 11/20 Answers

DATE \_\_\_\_\_ PERIOD \_\_\_\_\_

5-6

## Practice

## Geometry: Parallel and Perpendicular Lines

Write the slope-intercept form of an equation of the line that passes through the given point and is parallel to the graph of each equation.

1.  $(3, 2), y = x + 5$

$$m = 1$$
$$2 = 1(3) + b$$
$$2 = 3 + b$$
$$-1 = b$$
$$y = x - 1$$

2.  $(-2, 5), y = -4x + 2$

$$m = -4$$
$$5 = -4(-2) + b$$
$$5 = 8 + b$$
$$-3 = b$$
$$y = -4x - 3$$

3.  $(4, -6), y = -\frac{3}{4}x + 1$

$$m = -\frac{3}{4}$$
$$-6 = -\frac{3}{4}(4) + b$$
$$-6 = -3 + b$$
$$-3 = b$$
$$y = -\frac{3}{4}x - 3$$

4.  $(5, 4), y = \frac{2}{5}x - 2$

$$m = \frac{2}{5}$$
$$4 = \frac{2}{5}(5) + b$$
$$4 = 2 + b$$
$$2 = b$$
$$y = \frac{2}{5}x + 2$$

5.  $(12, 3), y = \frac{4}{3}x + 5$

$$m = \frac{4}{3}$$
$$3 = \frac{4}{3}(12) + b$$
$$3 = 16 + b$$
$$-13 = b$$
$$y = \frac{4}{3}x - 13$$

6.  $(3, 1), 2x + 3y = 5$

7.  $(-3, 4), 3y = 2x - 3$

8.  $(-1, -2), 3x - y = 5$

9.  $(-8, 2), 5x - 4y = 1$

10.  $(-1, -4), 9x + 3y = 8$

11.  $(-5, 6), 4x + 3y = 1$

12.  $(3, 1), 2x + 5y = 7$

Write the slope-intercept form of an equation of the line that passes through the